

CLAIMS:

1. A projection display system (100), comprising:
 - a light source (110) producing light;
 - a light modulator (120) adapted to generate an image from the light produced by the light source (110);
 - a projection lens system (130) adapted to project the image onto an image projection surface (150);
 - memory (145) for storing first data representing a first display size for the projected image on the image projection surface (150) and second data representing a second display size for the projected image on the image projection surface (150); and
 - a controller (140) adapted to retrieve one of the first and second data from the memory (145) and, in response thereto, to control the projection lens system (130) to cause the projected image to have a corresponding one of the first and second display sizes on the image projection surface (150).
2. The projection display system (100) of claim 1, further comprising a sensor (160) adapted to detect an ambient light level present in an area where the projection display system (100) is located, and wherein the controller (140) selects one of the first and the second display sizes in response to the detected ambient light level.
3. The projection display system (100) of claim 1, further comprising a user input (170) adapted to receive a size selection indication from a user, and wherein the controller (140) selects one of the first and the second display sizes in response to the size selection indication from the user.
4. The projection display system (100) of claim 1, wherein the controller (140) controls the projection lens system (130) to cause the projected image to have one of the first and the second display sizes on the image projection surface (150) in response to one selected from a group consisting of: a source format of the image; a type of source device providing the image to the projection display system; and a program type for the image.

5. The projection display system (100) of claim 1, wherein a ratio of a diagonal dimension of the first display size to a diagonal dimension of the second display size is at least 3:1.

6. The projection display system (100) of claim 1, where the projection lens system (130) includes a zoom lens adapted to change the size of the projected image in response to the controller (140).

7. The projection display system (100) of claim 1, where the projection lens system (130) includes a means for selectively moving at least one lens into or out of an optical path of the image received from the light modulator (120) in response to the controller (140).

8. A projection display system (100) according to any of the preceding claims wherein the projection lens system (130) includes a scanning laser beam.

9. A projection display system (100) according to any of the preceding claims wherein the first data or second data representing the display size is selected by the controller (140) analyzing electronic data input to be displayed.

10. A method of projecting an image with a projection display system (100), comprising:

generating an image;

selectively retrieving from memory (145) either first data, representing a first display size on an image projection surface (150), or second data, representing a second display size on the image projection surface (150); and

in response to the retrieved data, projecting the image onto the image projection surface (150) at a corresponding one of the first and second display sizes.

11. The method of claim 10, further comprising:
detecting an ambient light level present in an area where the projection display system (100) is located; and
selecting one of the first and the second display sizes in response to the detected ambient light level.

12. The method of claim 10, further comprising:
receiving a size selection indication from a user; and
selecting one of the first and the second display sizes in response to the size selection indication from the user.

13. The method of claim 10, further comprising:
determining one of a source format of the image; a type of source device providing the image to the projection display system; and a program type for the image; and
selecting one of the first and the second display sizes in response to the determined one of the source format, the type of source device, and the program type.

14. The method of claim 10, wherein a ratio of a diagonal dimension of the first display size to a diagonal dimension of the second display size is at least 3:1.

15. The method of claim 10, wherein projecting the image onto the image projection surface (150) at a corresponding one of the first and second display sizes comprises adjusting a magnification of a zoom lens.

16. The method of claim 10, projecting the image onto the image projection surface (150) at a corresponding one of the first and second display sizes comprises selectively moving at least one lens into or out of an optical path of the projected image.

17. A projection display system (100), comprising:
a light source (110) for producing light;
means (120) for generating an image from the light produced by the light source (110);

projection means (130) for projecting the image onto an image projection surface (150);

means for detecting an ambient light level present in an area where the projection display system (100) is located; and

control means (140) adapted to control the projection means (130) to change a size of a projected image on the image projection surface (150) in response to the detected ambient light level.

18. The projection display system (100) of claim 17, wherein the control means (140) is also adapted to select a size of a projected image in response to size selection input signal from a user, regardless of the detected ambient light level.

19. The projection display system (100) of claim 17 wherein the projection means (130) is adapted to project the image at the first and second display sizes wherein a ratio of a diagonal dimension of the first display size to a diagonal dimension of the second display size is at least 3:1.

20. The projection display system (100) of claim 17, where the projection means (130) includes a zoom lens adapted to change the size of the projected image in response to the control means (140).

21. The projection display system (100) of claim 17, where the projection means (130) includes a means for selectively moving at least one lens into or out of an optical path of the projected image. .

22. The projection display system (100) of claim 17, where the means (120) for generating an image includes one of a liquid crystal device or a digital micromirror device (DMD).